Amlan K Roy

List of Publications by Year
in descending order

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78 papers	1,355 citations	279798 23 h-index	454955 30 g-index
78 all docs	78 docs citations	78 times ranked	392 citing authors

#	Article	IF	Citations
1	Charge-Transfer Excitation within a Hybrid-(G)KS Framework through Cartesian Grid DFT. Journal of Physical Chemistry A, 2022, 126, 1448-1457.	2.5	3
2	A real-time TDDFT scheme for strong-field interaction in Cartesian coordinate grid. Chemical Physics Letters, 2022, 796, 139562.	2.6	2
3	Excitation energies through Beckeâ€™s exciton model within a Cartesian-grid KS DFT. Theoretical Chemistry Accounts, 2021, 140, 1.	1.4	4
4	Density functional study of atoms spatially confined inside a hard sphere. International Journal of Quantum Chemistry, 2021, 121, e26630.	2.0	3
5	Roâ€vibrational energy and thermodynamic properties of molecules subjected to <scp>Dengâ€“Fan</scp> potential through an improved approximation. International Journal of Quantum Chemistry, 2021, 121, e26616.	2.0	21
6	Confined H$$^-$$ ion within a density functional framework. European Physical Journal D, 2021, 75, 1.	1.3	6
7	Ro-vibrational energy analysis of Manningâ€“Rosen and PÃ¶schlâ€“Teller potentials with a new improved approximation in the centrifugal term. European Physical Journal Plus, 2021, 136, 1.	2.6	10
8	Energy and information analysis for confined H atom in harmonic environment. Journal of Physics: Conference Series, 2021, 1850, 012013.	0.4	1
9	Confined hydrogenlike ions in plasma environments. Physical Review A, 2021, 104, .	2.5	18
10	A Simple Effective SCF Method for Computing Optical Gaps in Organic Chromophores. Chemistry - an Asian Journal, 2021, 16, 2729-2739.	3.3	3
11	Analytical solution of D dimensional SchrÃ¶dinger equation for Eckart potential with a new improved approximation in centrifugal term. Chemical Physics Letters, 2021, 780, 138909.	2.6	14
12	Shell-confined atom and plasma: Incidental degeneracy, metallic character, and information entropy. Physical Review A, 2021, 104, .	2.5	7
13	Analysis of Compton profile through information theory in H-like atoms inside impenetrable sphere. Journal of Physics B: Atomic, Molecular and Optical Physics, 2020, 53, 235002.	1.5	14
14	Shannon Entropy in Confined He-Like Ions within a Density Functional Formalism. Quantum Reports, 2020, 2, 189-207.	1.3	19
15	Some complexity measures in confined isotropic harmonic oscillator. Journal of Mathematical Chemistry, 2019, 57, 1806-1821.	1.5	4
16	Quantum mechanical virial-like theorem for confined quantum systems. Physical Review A, 2019, 99, .	2.5	11
17	Efficient HF exchange evaluation through Fourier convolution in Cartesian grid for orbital-dependent density functionals. Journal of Chemical Physics, 2019, 150, 064104.	3.0	6
18	Information entropy and complexity measure in generalized Kratzer potential. Chemical Physics Letters, 2019, 716, 257-264.	2.6	31

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19	Static polarizability and hyperpolarizability in atoms and molecules through a Cartesian-grid DFT. Theoretical Chemistry Accounts, 2019, 138, 1.	1.4	6
20	Informationâ€entropic measures in free and confined hydrogen atom. International Journal of Quantum Chemistry, 2018, 118, e25596.	2.0	59
21	Fisher information in confined hydrogen-like ions. Chemical Physics Letters, 2018, 691, 449-455.	2.6	21
22	Density functional electric response properties of molecules in Cartesian grid. International Journal of Quantum Chemistry, 2018, 118, e25708.	2.0	7
23	Relative Fisher information in some central potentials. Annals of Physics, 2018, 398, 190-202.	2.8	9
24	Fisher information in confined isotropic harmonic oscillator. International Journal of Quantum Chemistry, 2018, 118, e25727.	2.0	6
25	Informationâ€Entropic Measures in Confined Isotropic Harmonic Oscillator. Advanced Theory and Simulations, 2018, 1, 1800090.	2.8	8
26	Information-entropic measures for non-zero l states of confined hydrogen-like ions. European Physical Journal D, 2018, 72, 1.	1.3	17
27	Various complexity measures in confined hydrogen atom. Chemical Physics Letters, 2017, 687, 322-329.	2.6	24
28	Information entropic measures of a quantum harmonic oscillator in symmetric and asymmetric confinement within an impenetrable box. Annalen Der Physik, 2016, 528, 796-818.	2.4	32
29	Dynamics of electronic motion in hydrogen atom under parallel strong oscillating magnetic field and intense laser fields. International Journal of Quantum Chemistry, 2016, 116, 377-387.	2.0	7
30	Critical parameters and spherical confinement of H atom in screened Coulomb potential. International Journal of Quantum Chemistry, 2016, 116, 953-960.	2.0	42
31	Quantum confinement in an asymmetric doubleâ€well potential through energy analysis and information entropic measure. Annalen Der Physik, 2016, 528, 412-433.	2.4	28
32	DFT calculations of atoms and molecules in Cartesian grids. Chemical Modelling, 2016, , 221-260.	0.4	1
33	Information entropy as a measure of tunneling and quantum confinement in a symmetric doubleâ€well potential. Annalen Der Physik, 2015, 527, 825-845.	2.4	30
34	Spherical confinement of coulombic systems inside an impenetrable box: H atom and the HulthÃ©n potential. International Journal of Quantum Chemistry, 2015, 115, 937-947.	2.0	33
35	Quantum confinement in 1D systems through an imaginary-time evolution method. Modern Physics Letters A, 2015, 30, 1550176.	1.2	8
36	Confinement in 3D polynomial oscillators through a generalized pseudospectral method. Modern Physics Letters A, 2014, 29, 1450104.	1.2	21

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37	Ground and excited states of spherically symmetric potentials through an imaginary-time evolution method: application to spiked harmonic oscillators. Journal of Mathematical Chemistry, 2014, 52, 2645-2662.	1.5	9
38	Studies on the Bound-State Spectrum of Hyperbolic Potential. Few-Body Systems, 2014, 55, 143-150.	1.5	8
39	Ro-vibrational spectroscopy of molecules represented by a Tietzâ€“Hua oscillator potential. Journal of Mathematical Chemistry, 2014, 52, 1405-1413.	1.5	29
40	Ro-vibrational studies of diatomic molecules in a shifted Deng-Fan oscillator potential. International Journal of Quantum Chemistry, 2014, 114, 383-391.	2.0	31
41	Studies on bound-state spectra of Manningâ€“Rosen potential. Modern Physics Letters A, 2014, 29, 1450042.	1.2	23
42	Accurate ro-vibrational spectroscopy of diatomic molecules in a Morse oscillator potential. Results in Physics, 2013, 3, 103-108.	4.1	26
43	A dispersion-corrected density functional theory study of hexamers of formic acid. Canadian Journal of Chemistry, 2013, 91, 527-528.	1.1	3
44	Studies on some exponentialâ€screened coulomb potentials. International Journal of Quantum Chemistry, 2013, 113, 1503-1510.	2.0	34
45	Density functional calculation of many-electron systems in Cartesian coordinate grid. Journal of Mathematical Chemistry, 2011, 49, 1687-1699.	1.5	10
46	Accurate calculation of the bound states of Hellmann potential. Journal of Mathematical Chemistry, 2008, 44, 260-269.	1.5	21
47	Density functional computational studies on the glucose and glycine Maillard reaction: Formation of the Amadori rearrangement products. International Journal of Quantum Chemistry, 2008, 108, 589-597.	2.0	9
48	Gridâ€based density functional calculations of manyâ€electron systems. International Journal of Quantum Chemistry, 2008, 108, 837-847.	2.0	12
49	Bound state spectra of the 3D rational potential. International Journal of Quantum Chemistry, 2008, 108, 827-836.	2.0	15
50	Pseudopotential density functional treatment of atoms and molecules in cartesian coordinate grid. Chemical Physics Letters, 2008, 461, 142-149.	2.6	11
51	Bound states of the generalized spiked harmonic oscillator. Computational and Theoretical Chemistry, 2008, 853, 27-32.	1.5	3
52	Clusters of glycolic acid and 16 water molecules. Chemical Physics Letters, 2007, 434, 176-181.	2.6	19
53	Ground and excited states of Liâ^', Beâ^' through a density-based approach. Chemical Physics Letters, 2007, 445, 355-360.	2.6	8
54	Studies on the 3D confined potentials using generalized pseudospectral approach. Physics Letters, Section A: General, Atomic and Solid State Physics, 2006, 357, 112-119.	2.1	34

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55	Pentamers of formic acid. Chemical Physics, 2005, 312, 119-126.	1.9	26
56	The generalized pseudospectral approach to the bound states of the HulthÃ©n and the Yukawa potentials. Pramana - Journal of Physics, 2005, 65, 1-15.	1.8	38
57	Studies on some singular potentials in quantum mechanics. International Journal of Quantum Chemistry, 2005, 104, 861-870.	2.0	23
58	Density functional studies on the hollow resonances in the Li-isoelectronic sequence (Z= 4â€“10). Journal of Physics B: Atomic, Molecular and Optical Physics, 2005, 38, 1591-1605.	1.5	12
59	Low-lying states of two-dimensional double-well potentials. Journal of Physics A, 2005, 38, 2189-2199.	1.6	10
60	Clusters of glycolic acid with three to six water molecules. Journal of Chemical Physics, 2005, 122, 074313.	3.0	14
61	Calculation of the bound states of power-law and logarithmic potentials through a generalized pseudospectral method. Journal of Physics G: Nuclear and Particle Physics, 2004, 30, 269-278.	3.6	25
62	Studies on the hollow states of atomic lithium using a density functional approach. Journal of Physics B: Atomic, Molecular and Optical Physics, 2004, 37, 4369-4386.	1.5	19
63	Calculation of the spiked harmonic oscillators through aÂgeneralized pseudospectral method. Physics Letters, Section A: General, Atomic and Solid State Physics, 2004, 321, 231-238.	2.1	35
64	Structures of the formic acid trimer. Chemical Physics Letters, 2004, 386, 162-168.	2.6	40
65	Formic acid tetramers: a structural study. Chemical Physics Letters, 2004, 393, 347-354.	2.6	27
66	Ground and excited states of one-dimensional self-interacting nonlinear oscillators through time-dependent quantum mechanics. International Journal of Quantum Chemistry, 2003, 91, 597-606.	2.0	15
67	Quantum-fluid-dynamics approach for strong-field processes: Application to the study of multiphoton ionization and high-order harmonic generation of He and Ne atoms in intense laser fields. Physical Review A, 2002, 65, .	2.5	22
68	Density-functional calculations on singly and doubly excited Rydberg states of many-electron atoms. Physical Review A, 2002, 65, .	2.5	31
69	Quantum fluid dynamics approach for electronic structure calculation: application to the study of ground-state properties of rare gas atoms. Journal of Physics B: Atomic, Molecular and Optical Physics, 2002, 35, 2075-2086.	1.5	13
70	One-dimensional multiple-well oscillators: A time-dependent quantum mechanical approach. Pramana - Journal of Physics, 2002, 59, 575-583.	1.8	12
71	Time-dependent quantum-mechanical calculation of ground and excited states of anharmonic and double-well oscillators. Physical Review A, 2001, 65, .	2.5	36
72	Direct calculation of ground-state electronic densities and properties of noble gas atoms through a single time-dependent hydrodynamical equation. Chemical Physics Letters, 1999, 308, 523-531.	2.6	24

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73	Density functional calculations on neon satellites. Chemical Physics Letters, 1998, 292, 461-466.	2.6	8
74	Density functional calculations on low-lying singly excited states of open-shell atoms. Chemical Physics Letters, 1998, 296, 530-536.	2.6	8
75	Density-functional calculations for doubly excited states of He, and. Journal of Physics B: Atomic, Molecular and Optical Physics, 1997, 30, 4763-4782.	1.5	35
76	Atomic inner-shell transitions: a density functional approach. Physics Letters, Section A: General, Atomic and Solid State Physics, 1997, 234, 465-471.	2.1	19
77	Density functional calculations on triply excited states of lithium isoelectronic sequence. International Journal of Quantum Chemistry, 1997, 65, 317-332.	2.0	19
78	A self-consistent systematic optimisation of range-separated hybrid functionals from first principles. Molecular Physics, 0, , .	1.7	3